

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

Patent Application US/07/661,070

SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT: Huston, James S
Charette, Marc F
Cohen, Charles M
Crea, Roberto
Keck, Peter C
Oppermann, Hermann
Rueger, David C
Ridge, Richard J

(ii) TITLE OF INVENTION: Product and Process for the Production, Isolation and Purification of Recombinant Polypeptides

(iii) NUMBER OF SEQUENCES: 14

(iv) CORRESPONDENCE ADDRESS:

- (A) ADDRESSEE: Creative BioMolecules
 - (B) STREET: 35 South Street
 - (C) CITY: Hopkinton
 - (D) STATE: MA
 - (E) COUNTRY: USA
 - (F) ZIP: 01748

(v) COMPUTER READABLE FORM:

- (A) MEDIUM TYPE: Floppy disk
 - (B) COMPUTER: IBM PC compatible
 - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 - (D) SOFTWARE: PatentIn Release #1.0, Version #1.25

(vi) CURRENT APPLICATION DATA:

- (A) APPLICATION NUMBER: US 07/661,070
(B) FILING DATE: 26-FEB-1991
(C) CLASSIFICATION: 435/68
 536/27
 530/300
 530/350

(viii) ATTORNEY/AGENT INFORMATION:

- (A) NAME: Lunn, Paul G.
(B) REGISTRATION NUMBER: 32,743
(C) REFERENCE/DOCKET NUMBER: CRP-008DV

(ix) TELECOMMUNICATION INFORMATION:

- (A) TELEPHONE: (508) 435-9001
(B) TELEFAX: (508) 435-6951

(2) INFORMATION FOR SEO ID NO:1:

Patent Application US/07/661,070

99 GCT AAA AAC CTT AAC GAA GCT
100 Ala Lys Asn Leu Asn Glu Ala
101 1 5
102

21

104 (2) INFORMATION FOR SEQ ID NO:3:
105
106 (i) SEQUENCE CHARACTERISTICS:

Patent Application US/07/661,070

107 (A) LENGTH: 7 amino acids
108 (B) TYPE: amino acid
109 (D) TOPOLOGY: linear
110
111 (ii) MOLECULE TYPE: protein
112
113 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:
114

115 Ala Lys Asn Leu Asn Glu Ala
116 1 5

117
118 (2) INFORMATION FOR SEQ ID NO:4:

119
120 (i) SEQUENCE CHARACTERISTICS:
121 (A) LENGTH: 13 amino acids
122 (B) TYPE: amino acid
123 (C) STRANDEDNESS: single
124 (D) TOPOLOGY: linear
125

126 (ii) MOLECULE TYPE: peptide

127
128 (iii) HYPOTHETICAL: NO

129
130 (iv) ANTI-SENSE: NO

131
132 (v) FRAGMENT TYPE: internal
133
134

135
136 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

137
138 Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Glu
139 1 5 10

140
141 (2) INFORMATION FOR SEQ ID NO:5:

142
143 (i) SEQUENCE CHARACTERISTICS:
144 (A) LENGTH: 16 amino acids
145 (B) TYPE: amino acid
146 (C) STRANDEDNESS: single
147 (D) TOPOLOGY: linear
148

149 (ii) MOLECULE TYPE: peptide

150
151 (iii) HYPOTHETICAL: NO

152
153 (iv) ANTI-SENSE: NO

154
155 (v) FRAGMENT TYPE: internal
156

157
158
159 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Patent Application US/07/661,070

160
161 Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Leu Glu
162 1 5 10 15
163
164

165 (2) INFORMATION FOR SEQ ID NO:6:

166
167 (i) SEQUENCE CHARACTERISTICS:
168 (A) LENGTH: 59 amino acids
169 (B) TYPE: amino acid
170 (C) STRANDEDNESS: single
171 (D) TOPOLOGY: linear
172
173 (ii) MOLECULE TYPE: protein
174
175 (iii) HYPOTHETICAL: NO
176
177 (iv) ANTI-SENSE: NO
178
179 (v) FRAGMENT TYPE: N-terminal
180
181
182

183 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

184
185 Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Leu Asp
186 1 5 10 15
187
188 Ser Arg Leu Asp Leu Asp Val Arg Thr Asp His Lys Asp Leu Ser Asp
189 20 25 30
190
191 His Leu Val Leu Val Asp Leu Ala Arg Asn Asp Leu Ala Arg Ile Val
192 35 40 45
193
194 Thr Pro Gly Ser Arg Tyr Val Ala Asp Leu Glu
195 50 55
196

197 (2) INFORMATION FOR SEQ ID NO:7:

198
199 (i) SEQUENCE CHARACTERISTICS:
200 (A) LENGTH: 4 amino acids
201 (B) TYPE: amino acid
202 (C) STRANDEDNESS: single
203 (D) TOPOLOGY: linear
204
205 (ii) MOLECULE TYPE: peptide
206
207 (iii) HYPOTHETICAL: NO
208
209 (iv) ANTI-SENSE: NO
210
211 (v) FRAGMENT TYPE: internal
212

Patent Application US/07/661,070

213
214
215 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:
216
217 Glu Phe Met Arg
218 1
219

220 (2) INFORMATION FOR SEQ ID NO:8:
221
222 (i) SEQUENCE CHARACTERISTICS:
223 (A) LENGTH: 10 amino acids
224 (B) TYPE: amino acid
225 (C) STRANDEDNESS: single
226 (D) TOPOLOGY: linear
227

228 (ii) MOLECULE TYPE: peptide
229
230 (iii) HYPOTHETICAL: NO
231
232 (iv) ANTI-SENSE: NO
233
234 (v) FRAGMENT TYPE: internal
235
236
237

238 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:
239
240 Glu Phe Asp Pro Pro Pro Lys Phe Met Arg
241 1 5 10
242

243 (2) INFORMATION FOR SEQ ID NO:9:
244
245 (i) SEQUENCE CHARACTERISTICS:
246 (A) LENGTH: 13 amino acids
247 (B) TYPE: amino acid
248 (C) STRANDEDNESS: single
249 (D) TOPOLOGY: linear
250

251 (ii) MOLECULE TYPE: peptide
252
253 (iii) HYPOTHETICAL: NO
254
255 (iv) ANTI-SENSE: NO
256
257 (v) FRAGMENT TYPE: internal
258
259
260

261 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:
262
263 Glu Phe Asp Pro Pro Pro Met Pro Arg Lys Phe Met Arg
264 1 5 10
265

Patent Application US/07/661,070

266 (2) INFORMATION FOR SEQ ID NO:10:

267
268 (i) SEQUENCE CHARACTERISTICS:
269 (A) LENGTH: 20 amino acids
270 (B) TYPE: amino acid
271 (C) STRANDEDNESS: single
272 (D) TOPOLOGY: linear
273

274 (ii) MOLECULE TYPE: peptide
275

276 (iii) HYPOTHETICAL: NO
277

278 (iv) ANTI-SENSE: NO
279

280 (v) FRAGMENT TYPE: internal
281

282

283 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

284
285 Glu Phe Asp Pro Pro Pro Met Pro Arg Met Pro Asp Pro Glu Leu Arg
286 1 5 10 15
287

288 Lys Phe Met Arg
289 20
290

291 (2) INFORMATION FOR SEQ ID NO:11:

292
293 (i) SEQUENCE CHARACTERISTICS:
294 (A) LENGTH: 193 amino acids
295 (B) TYPE: amino acid
296 (C) STRANDEDNESS: single
297 (D) TOPOLOGY: linear
298

299 (ii) MOLECULE TYPE: protein
300

301 (iii) HYPOTHETICAL: NO
302

303 (iv) ANTI-SENSE: NO
304

305 (v) FRAGMENT TYPE: N-terminal
306

307

308

309

310 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

311

312 Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Leu Asp
313 1 5 10 15
314

315 Ser Arg Ile Glu Leu Glu Met Arg Thr Asp His Lys Glu Leu Ser Glu
316 20 25 30
317

318 His Leu Met Leu Val Asp Leu Ala Arg Asn Asp Leu Ala Arg Ile Cys

Patent Application US/07/661,070

319 35 40 45
320
321 Thr Pro Gly Ser Arg Tyr Val Ala Asp Leu Thr Lys Val Asp Arg Tyr
322 50 55 60
323
324 Ser Tyr Val Met His Leu Val Ser Arg Val Val Gly Glu Leu Arg His
325 65 70 75 80
326
327 Asp Leu Asp Ala Leu His Ala Tyr Arg Ala Cys Met Asn Met Gly Thr
328 85 90 95
329
330 Leu Ser Gly Ala Pro Lys Val Arg Ala Met Gln Leu Ile Ala Glu Ala
331 100 105 110
332
333 Glu Gly Arg Arg Arg Gly Ser Tyr Gly Gly Ala Val Gly Tyr Phe Thr
334 115 120 125
335
336 Ala His Gly Asp Leu Asp Thr Cys Ile Val Ile Arg Ser Ala Leu Val
337 130 135 140
338
339 Glu Asn Gly Ile Ala Thr Val Gln Ala Gly Ala Gly Val Val Leu Asp
340 145 150 155 160
341
342 Ser Val Pro Gln Ser Glu Ala Asp Glu Thr Arg Asn Lys Ala Arg Ala
343 165 170 175
344
345 Val Leu Arg Ala Ile Ala Thr Ala His His Ala Gln Glu Phe Pro Gly
346 180 185 190
347
348 Glu
349
350
351 (2) INFORMATION FOR SEQ ID NO:12:
352
353 (i) SEQUENCE CHARACTERISTICS:
354 (A) LENGTH: 59 amino acids
355 (B) TYPE: amino acid
356 (C) STRANDEDNESS: single
357 (D) TOPOLOGY: linear
358
359 (ii) MOLECULE TYPE: protein
360
361 (iii) HYPOTHETICAL: NO
362
363 (iv) ANTI-SENSE: NO
364
365 (v) FRAGMENT TYPE: N-terminal
366
367
368
369 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:
370
371 Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Leu Asp

Patent Application US/07/661,070

372 1 5 10 15
373
374 Ser Arg Leu Asp Leu Asp Val Arg Thr Asp His Lys Asp Leu Ser Asp
375 20 25 30
376
377 His Leu Val Leu Val Asp Leu Ala Arg Asn Asp Leu Ala Arg Ile Val
378 35 40 45
379
380 Thr Pro Gly Ser Arg Tyr Val Ala Asp Leu Glu
381 50 55
382
383 (2) INFORMATION FOR SEQ ID NO:13:
384
385 (i) SEQUENCE CHARACTERISTICS:
386 (A) LENGTH: 21 amino acids
387 (B) TYPE: amino acid
388 (C) STRANDEDNESS: single
389 (D) TOPOLOGY: linear
390
391 (ii) MOLECULE TYPE: peptide
392
393 (iii) HYPOTHETICAL: NO
394
395 (iv) ANTI-SENSE: NO
396
397 (v) FRAGMENT TYPE: internal
398
399
400
401 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:
402
403 Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Leu Glu
404 1 5 10 15
405
406 Phe Met Pro Pro Cys
407 20
408
409 (2) INFORMATION FOR SEQ ID NO:14:
410
411 (i) SEQUENCE CHARACTERISTICS:
412 (A) LENGTH: 19 amino acids
413 (B) TYPE: amino acid
414 (C) STRANDEDNESS: single
415 (D) TOPOLOGY: linear
416
417 (ii) MOLECULE TYPE: peptide
418
419 (iii) HYPOTHETICAL: NO
420
421 (iv) ANTI-SENSE: NO
422
423 (v) FRAGMENT TYPE: internal
424

Patent Application US/07/661,070

425

426

427 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

428

429 Met Lys Ala Ile Phe Val Leu Lys Gly Ser Leu Asp Arg Asp Leu Glu
430 1 5 10 15

431

432 Phe Met Cys

433

PAGE: 1

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/07/661,070

DATE: 04/22/91

TIME: 09:27:54

LINE ERROR

ORIGINAL TEXT

35 Wrong application Serial Number
36 Wrong Filing Date
37 Wrong Classification

(A) APPLICATION NUMBER: US 07/661,070
(B) FILING DATE: 26-FEB-1991
(C) CLASSIFICATION: 435/68

PAGE: 1

SEQUENCE MISSING ITEM REPORT
PATENT APPLICATION US/07/661,070

DATE: 04/22/91
TIME: 09:27:54

MANDATORY IDENTIFIER THAT WAS NOT FOUND

PRIOR APPLICATION DATA
APPLICATION NUMBER
FILING DATE

PAGE: 1

SEQUENCE CORRECTION REPORT
PATENT APPLICATION US/07/661,070

DATE: 04/22/91
TIME: 09:27:54

LINE ORIGINAL TEXT

CORRECTED TEXT